ERRATA SHEET FOR ANSI/ASHRAE STANDARD 145.2-2011
Laboratory Test Method for Assessing the Performance of
Gas-Phase Air-Cleaning Systems: Air-Cleaning Devices

January 12, 2016

The corrections listed in this errata sheet apply to ANSI/ASHRAE Standard 145.2-2011. The first printing is identified on the outside back cover as "Product code: 86477   8/11". Shaded item has been added since the previously published errata sheet dated October 29, 2013 was distributed.

<u>Page</u>	<u>Erratum</u>
18	**Table 6.1.4.1 Standard Test Challenge Gases.** In Table 6.1.4.1, in the column titled "Required Chemical", replace the symbol "þ" with a check box "☑" indicating that compund is the required chemical. See excerpt from table attached. The remainder of Table 6.1.4.1 is unchanged.
19	**Table 6.1.4.1 Standard Test Challenge Gases.** Revise the units for the low concentration limit for Carbon Dioxide from ppb to ppm. See excerpt from table attached. The remainder of Table 6.1.4.1 is unchanged. *(Note: Additions are shown in <u>underline</u> and deletions are shown in ~~strikethrough~~.)*

21   **10.6 Standard Capacity Test Penetration, P_t (%).** Replace Section 10.6 with the following:

10.6   Standard Capacity Test Penetration, P_t (%). Compute the penetration for each time interval using Equation 10-1.

$$P_t = \left(\frac{Co_t}{Ci} \right) * 100 \qquad\qquad (10\text{-}1)$$

where:
C_i = inlet (media challenge) gas concentration (in ppm) averaged over the high concentration challenge portion of the test
C_{ot} = outlet (media downstream) gas concentration (in ppm) at time "t"

Since rig background concentrations must be insignificant, background corrections are not required to be made. Plot the penetration versus elapsed challenge time (beyond the conditioning period).

27   **Normative Annex A.** Insert Figure A-1 after Section A2.2 Example of Leakage From an ASHRAE Standard 52.2 Duct. Figure A-1 is missing from the published standard. See attached Figure A-1.

Table 6.1.4.1 Standard Test Challenge Gases

Category / Chemical	CAS #	MW*	Low Conc. (ppb)	High Conc. (ppm)	NIOSH REL TWA (ppm)**	OSHA PEL TWA (ppm)**	High Conc. Rationale ***	Capacity Used****	Required Chemical
Sulfur Dioxide	7446-09-5	64.1	50	35	2	5	AA	6%, x 8%, y_b	☑
Formaldehyde	50-00-0	30.0	100	1	0.016	0.75	EE	3%, x	☑
Ammonia	7664-41-7	17.0	100	75	25	50	AA	5%, y_a	☑
Ozone	10028-15-6	48.0	75	0.5	0.1 (c)	0.1	BB	none	☑
Toluene	108-88-3	92.1	400	50	100	200	AA	20%, z	☑
DMMP	756-79-6	124.1	75	20	none	none			☑

TABLE 6.1.4.1 Standard Test Challenge Gases

Category / Chemical	CAS #	MW*	Low Conc. (ppb)	High Conc. (ppm)	NIOSH REL TWA (ppm)**	OSHA PEL TWA (ppm)**	High Conc. Rationale ***	Capacity Used****	Required Chemical
Miscellaneous									
Carbon Dioxide	124-38-9	44.0	400 †	5,000	5,000	5,000	DD		

NOTES:
* Molecular Weight
**Includes NIOSH Recommended Exposure Limits and OSHA Permissible Exposure Limits that have been vacated. The values are time-weighted averages unless otherwise indicated as follows: c = ceiling value, st = short term
*** Rationale for the Recommended High Concentration is as follows:
AA = Based on the concentration of gas required to consume 2 ft^3 of media at 2000 cfm in 8 h
BB = based on consideration of safety, health, and reactivity with materials of construction
CC = based on consideration of safety, health, and low odor threshold
DD = based on NIOSH and OSHA TWAs
EE = based on considerations of safety and health
**** Capacities taken from standard industry sources such as the carbon tables. Media types indicated below:
x = permanganate-impregnated activated alumina
ya = acid-impregnated activated carbon
yb = base-impregnated activated carbon
z = virgin activated carbon, bituminous
+Challenge gas shall be NO_2; analysis shall be performed for both NO_2 and NO.
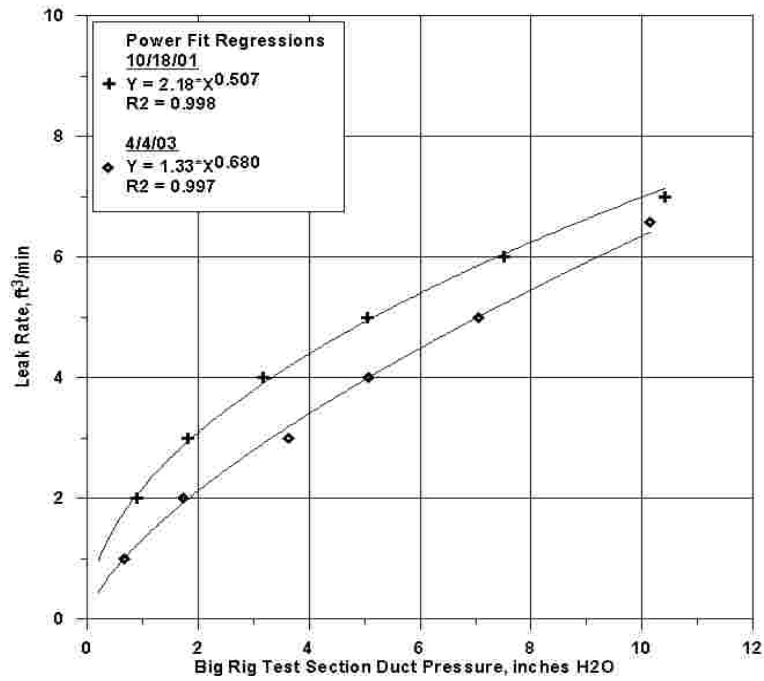† Units for Low Concentration for Carbon Dioxide are ppm.

Figure A-1. Static leak test of ASHRAE Standard 52.2 duct after test rig sealing.